STN Search

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FILE 'HOME' ENTERED AT 09:15:40 ON 22 JUL 2004
L1    QUE (BACTERIOCIN OR LANTIBIOTIC OR LANTHIONINE OR MAILLARD OR NISIN) AND (
          METAL OR COBALT OR CHELAT##### OR COPPER OR ZINC)
L3         1489 L1 AND (LANTIBIOTIC OR LANTHIONINE OR MAILLARD OR NISIN) AND
                (METAL OR COBALT OR CHELAT#####)
L4          801 L1 AND (BACTERIOCIN OR LANTIBIOTIC OR LANTHIONINE OR MAILLARD
                OR NISIN) (P) (METAL OR COBALT OR CHELAT##### OR COPPER OR ZINC)

L10          54 L1 AND LANTHIONINE AND (LANTHIONINE OR NISIN OR LAN) (P) (CHELAT
                ########### OR COBALT OR METAL)
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his

(FILE 'HOME' ENTERED AT 09:15:40 ON 22 JUL 2004)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 09:16:00 ON 22 JUL 2004

SEA (BACTERIOCIN OR LANTIBIOTIC OR LANTHIONINE OR MAILLARD OR N	
1	FILE ADISINSIGHT
1	FILE ADISNEWS
54	FILE AGRICOLA
4	FILE ANABSTR
4	FILE AQUASCI
66	FILE BIOBUSINESS
3	FILE BIOCOMMERCE
158	FILE BIOSIS
8	FILE BIOTECHABS
8	FILE BIOTECHDS
50	FILE BIOTECHNO
84	FILE CABA
7	FILE CANCERLIT
303	FILE CAPLUS
3	FILE CEABA-VTB
10	FILE CEN
1	FILE CROPB
2	FILE CROPU
24	FILE DISSABS
4	FILE DDFB
3	FILE DDFU
9	FILE DGENE
4	FILE DRUGB
4	FILE DRUGU
1	FILE EMBAL
85	FILE EMBASE
73	FILE ESBIOBASE
20	FILE FEDRIP
122	FILE FROSTI
87	FILE FSTA
55	FILE GENBANK
4	FILE HEALSAFE
64	FILE IFIPAT
53	FILE JICST-EPLUS
4	FILE KOSMET
48	FILE LIFESCI
128	FILE MEDLINE
4	FILE NTIS
1	FILE OCEAN

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               97   FILE PASCAL
                3   FILE PHIN
               38   FILE PROMT
                1   FILE PROUSDDR
                1   FILE RDISCLOSURE
              207   FILE SCISEARCH
              131   FILE TOXCENTER
             1167   FILE USPATFULL
               90   FILE USPAT2
                1   FILE VETB
                1   FILE VETU
               71   FILE WPIDS
               71   FILE WPINDEX
               13   FILE BABS
               19   FILE INVESTEXT
                1   FILE NAPRALERT
L1               QUE (BACTERIOCIN OR LANTIBIOTIC OR LANTHIONINE OR MAILLARD OR N
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     FILE 'MEDLINE, PASCAL, FROSTI, USPATFULL, BIOSIS, SCISEARCH, TOXCENTER'
     ENTERED AT 09:21:44 ON 22 JUL 2004
L2          2010 S L1
L3          1489 S L1 AND (LANTIBIOTIC OR LANTHIONINE OR MAILLARD OR NISIN) AND
L4           801 S L1 AND (BACTERIOCIN OR LANTIBIOTIC OR LANTHIONINE OR MAILLARD
L5           592 S L3 AND L4
L6           351 DUP REM L5 (241 DUPLICATES REMOVED)
L7            14 S L6 AND NISIN AND COBALT
L8            42 S L1 AND LANTHIONINE (P) (CHELAT########### OR COBALT OR METAL)
L9            41 S L8 NOT L7
L10           54 S L1 AND LANTHIONINE AND (LANTHIONINE OR NISIN OR LAN) (P) (CHE
L11           54 S (L10 OR L9)
L12           42 S L11 NOT PY>2002
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L7 ANSWER 5 OF 14 USPATFULL on STN
AN 2003:250422 USPATFULL
TI **Bacteriocin-metal** complexes in the detection of pathogens and other biological analytes
IN Olstein, Alan D., Mendota Heights, MN, UNITED STATES
Feirtag, Joellen, St. Paul, MN, UNITED STATES
PI US 2003175207 A1 20030918
AI US 2002-82618 A1 20020222 (10)
DT Utility
FS APPLICATION
LREP REED & EBERLE LLP, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025
CLMN Number of Claims: 72
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 1973
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Complexes of **bacteriocins** and **metals** are provided that are useful in detecting bacteria, fungi and other biological analytes, and are particularly useful in detecting gram positive bacteria. The complexes are preferably **chelated** complexes wherein the **bacteriocin** is a **lantibiotic**, non-**lanthionine** containing peptide, large heat labile protein and complex **bacteriocin**, fusion protein thereof, mixture thereof, and fragment, homolog and variant thereof, and (b) a detectable label comprising a transition or lanthanide **metal**. The complex preferentially binds to viable gram positive or mycobacterial cells. The complex can also bind to gram negative bacteria and fungi. Methods of using the complexes in assays, diagnosis and imaging are also provided.

L7 ANSWER 14 OF 14 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1974:51170 BIOSIS
DN PREV197410051170; BR10:51170
TI EFFECT OF **COBALT**-60 GAMMA RADIATION ON THE STRUCTURE AND FUNCTION OF PENICILLIN OXYTETRACYCLINE AND **NISIN**.
AU GUPTA K G; VYAS K K; SEHKNON N S
SO (1973) pp. 1973. U N E S C O AND W H O. GLOBAL IMPACTS OF APPLIED MICROBIOLOGY. 4TH INTERNATIONAL CONFERENCE IMPACTOS GLOBAIS DA MICROBIOLOGIA APLICADA. INCIDENCES MONDIALES DE LA MICROBIOLOGIE APPLIQUEE. IMPACTOS GLOBALES DE LA MICROBIOLOGIA APLICADA SAO PAULO, BRAZIL, JULY 23-28, 1973. 35P. UNIPUB, INC.: P.O. BOX 433, NEW YORK, N. Y., U.S.A.
DT Book
FS BR
LA Unavailable

L12 ANSWER 1 OF 42 MEDLINE on STN
AN 2000405069 MEDLINE
DN PubMed ID: 10563973
TI Chemistry, biochemistry, nutrition, and microbiology of lysinoalanine, **lanthionine**, and histidinoalanine in food and other proteins.
AU Friedman M
CS Western Regional Research Center, Agricultural Research Service, U.S. Department of Agriculture, Albany, CA 94710, USA.
SO Journal of agricultural and food chemistry, (1999 Apr) 47 (4) 1295-319.
Ref: 280
Journal code: 0374755. ISSN: 0021-8561.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Priority Journals
EM 200008
ED Entered STN: 20000901
Last Updated on STN: 20000901
Entered Medline: 20000822
AB Heat and alkali treatments of foods, widely used in food processing, result in the formation of dehydro and cross-linked amino acids such as dehydroalanine, methyldehydroalanine, beta-aminoalanine, lysinoalanine (LAL), ornithinoalanine, histidinoalanine (HAL), phenylethylaminoalanine, **lanthionine** (**LAN**), and methyl-**lanthionine** present in proteins and are frequently accompanied by concurrent racemization of L-amino acid isomers to D-analogues. The mechanism of LAL formation is a two-step process: first, hydroxide ion-catalyzed elimination of H(2)S from cystine and H(2)O, phosphate, and glycosidic moieties from serine residues to yield a dehydroalanine intermediate; second, reaction of the double bond of dehydroalanine with the epsilon-NH(2) group of lysine to form LAL. Analogous elimination-addition reactions are postulated to produce the other unusual amino acids. Processing conditions that favor these transformations include high pH, temperature, and exposure time. Factors that minimize LAL formation include the presence of SH-containing amino acids, sodium sulfite, ammonia, biogenic amines, ascorbic acid, citric acid, malic acid, and glucose; dephosphorylation of O-phosphoryl esters; and acylation of epsilon-NH(2) groups of lysine. The presence of LAL residues along a protein chain decreases digestibility and nutritional quality in rodents and primates but enhances nutritional quality in ruminants. LAL has a strong affinity for **copper** and other **metal** ions and is reported to induce enlargement of nuclei of rats and mice but not of primate kidney cells. LAL, **LAN**, and HAL also occur naturally in certain peptide and protein antibiotics (cinnamycin, duramycin, epidermin, **nisin**, and subtilin) and in body organs and tissues (aorta, bone, collagen, dentin, and eye cataracts), where their formation may be a function of the aging process. These findings are not only of theoretical interest but also have practical implications for nutrition, food safety, and health. Further research needs are suggested for each of these categories. These overlapping aspects are discussed in terms of general concepts for a better understanding of the impact of LAL and related compounds in the diet. Such an understanding can lead to improvement in food quality and safety, nutrition, microbiology, and human health.

L12 ANSWER 4 OF 42 FROSTI COPYRIGHT 2004 LFRA on STN
AN 398871 FROSTI
TI Stabilized **lanthionine bacteriocin** compositions.

IN Blackburn P.; De La Harpe J.
PA Applied Microbiology Inc.
SO European Patent Application
PI EP 673199 A1
WO 9413143 19940623
DS AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
AI 19931208
PRAI United States 19921208
DT Patent
LA English
SL English
AB A composition containing a **bacteriocin** such as **nisin** and a thioether for stabilisation against degradation is described. The composition may also contain a surfactant and/or a **chelating** agent. The composition has both Gram-positive and Gram-negative bactericidal activity and has several applications as a food preservative.

L12 ANSWER 9 OF 42 USPATFULL on STN
AN 2001:188224 USPATFULL
TI Anti-microbial compositions
IN Johnson, Paula Ann, Wirral, Great Britain
Landa, Andrew Sjaak, Wirral, Great Britain
Makin, Stephen Anthony, Wirral, Great Britain
Mcmillan, Ian Robert, Wirral, Great Britain
PI US 2001033854 A1 20011025
AI US 2001-764734 A1 20010117 (9)
PRAI GB 2000-1133 20000118
GB 2000-1132 20000118
DT Utility
FS APPLICATION
LREP UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1229
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Anti-microbial compositions for use on the outer surface of the human body or on apparel worn in close proximity thereto comprising a carrier material and a salt of a transition **metal chelator** comprising a transition **metal chelator** anion and particular organic cations. The **chelator** salts possess great formulation flexibility, being compatible with a wide range of other materials, and are believed to function by inhibiting the up-take of essential transition **metal** nutrients by microbes. Preferred **chelators** have high affinity for iron (III).

L12 ANSWER 31 OF 42 USPATFULL on STN
AN 90:98514 USPATFULL
TI Novel **bacteriocin** compositions for use as enhanced broad range bactericides and methods of preventing and treating microbial infection
IN Blackburn, Peter, New York, NY, United States
Gusik, Sara-Ann, New York, NY, United States
Polak, June, New York, NY, United States
Rubino, Stephen D., New York, NY, United States
PA Public Health Research Institute of the City of New York, New York, NY, United States (U.S. corporation)
PI US 4980163 19901225
AI US 1989-317627 19890301 (7)

DT Utility
FS Granted
EXNAM Primary Examiner: Schain, Howard E.; Assistant Examiner: Koh, Choon
LREP White & Case
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 445
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Broad range **bacteriocin** compositions are provided. The compositions can be dissolved or suspended in a suitable solvent or matrix and are more active towards a broader range of bacteria than are any of the component parts. The dissolved or suspended compositions constitute enhanced broad range bactericides. The compositions include lysostaphin and a **lanthionine** containing peptide **bacteriocin**; lysostaphin, a **lanthionine** containing peptide **bacteriocin** and a **chelating** agent; and lysostaphin, a **lanthionine** containing peptide, a **chelating** agent and a surfactant. Each component is present in the enhanced broad range bactericide in sufficient amount such that the bactericide is more effective against staphylococci than is lysostaphin alone and is more effective at treating and preventing a broad range of microbial infections. Methods of treating bacterial infections using said compositions and bactericides are provided.

L12 ANSWER 41 OF 42 TOXCENTER COPYRIGHT 2004 ACS on STN
AN 1988:92584 TOXCENTER
CP Copyright 2004 BIOSIS
DN PREV198886086696
TI BINDING OF **COPPER**-II AND OTHER **METAL** IONS BY LYSINOALANINE AND RELATED COMPOUNDS AND ITS SIGNIFICANCE FOR FOOD SAFETY
AU PEARCE K N [Reprint author]; FRIEDMAN M
CS WESTERN REGIONAL RES CENT, US DEP AGRIC-AGRIC RES SERV, 800 BUCHANAN ST, ALBANY, CALIF 94710, USA
SO Journal of Agricultural and Food Chemistry, (1988) Vol. 36, No. 4, pp. 707-717.
CODEN: JAFCAU. ISSN: 0021-8561.
DT Article
FS BIOSIS
OS BIOSIS 1988:424084
LA ENGLISH
ED Entered STN: 20011116
Last Updated on STN: 20011116
AB Acid-base equilibrium constants for the five ionizable groups and **metal** ion (Ca2+, Mn2+, Fe2+, Co2+, Ni2+, Cu+, Cu2+, Zn2+, Cd2+, Hg2+) binding constants of Nε-(2-amino-2-carboxyethyl)-L-lysine (lysinoalanine, LAL) have been determined at 25°C and 0.16 M ionic strength by potentiometric titration. Less extensive data are reported for the related compounds DL-2,3-diaminopropanoic acid (DAPA), 3-[(2-phenylethyl)amino]-DL-alanine (PEAA), and L-**lanthionine** (**LAN**), three other unnatural amino acids also formed during food processing. These unnatural amino acids are sufficiently strong **chelators** to influence **copper** transport by histidine in vivo at plasma levels of 49 μM LAL, 23 μM DAPA, 243 μM PEAA, and 511 μM **LAN**. Relatively high concentrations of these compounds are calculated to be necessary for competitive binding of essential **zinc** ions and inactivation of carboxypeptidase A and other enzymes. Possible mechanisms for kidney damage by these dehydroalanine-derived **copper chelators** are discussed.